

## CLAIMS

What is claimed is:

- 1    1.    A computer implemented method comprising:  
2        generating a first command for a set of network data to be executed on a local  
3                memory;  
4        executing a second command for the set of network data on a remote memory  
5                in response to generation of the first command;  
6        determining whether the second command has been executed successfully on  
7                the remote memory;  
8        executing the first command on the local memory upon determining the  
9                second command is executed successfully; and  
10        generating an error upon determining the second command is not executed  
11                successfully.
- 1    2.    The computer implemented method of claim 1 wherein the set of network data  
2        is a set of configurations.
- 1    3.    The computer implemented method of claim 1 wherein the first command is a  
2        write command to an address of the local memory and the second command is a write  
3        command to an address of the remote memory.
- 1    4.    The computer implemented method of claim 1 wherein the first command is a  
2        delete command for an address of the local memory and the second command is a  
3        delete command for an address of the remote memory.
- 1    5.    A computer implemented method comprising:  
2        mapping a first memory to a second memory;

3 receiving a set of configurations;  
 4 processing the set of configurations;  
 5 generating a set of commands for the first memory, the set of commands  
 6 corresponding to the processed set of configurations;  
 7 triggering an exception when beginning to execute the set of commands on the  
 8 first memory, wherein the exception performs the following:  
 9 executing the set of commands on the second memory in response to  
 10 the exception;  
 11 upon determining the set of commands are executed successfully on  
 12 the second memory, completing execution of the set of  
 13 commands on the first memory; and  
 14 upon determining the set of commands are not executed on the second  
 15 memory successfully, generating an error.

1 6. The computer implemented method of claim 5 wherein the set of  
 2 configurations are for a set of network processes.

1 7. The computer implemented method of claim 5 wherein the error is displayed  
 2 as a text message.

1 8. The computer implemented method of claim 5 wherein the error is passed to  
 2 an error parser.

1 9. The computer implemented method of claim 5 wherein the mapping the first  
 2 memory to the second memory comprises associating a set of addresses of the first  
 3 memory to a set of addresses of the second memory.

1 10. The computer implemented method of claim 5 wherein the set of commands  
2 are a set of write commands.

1 11. The computer implemented method of claim 5 wherein the set of commands  
2 are a set of delete commands.

1 12. A computer implemented method comprising:  
2 receiving a request to modify configuration data located at a local address in  
3 local memory in an active control card;  
4 generating an exception when the configuration data located at the local  
5 address in the local memory is attempted to be modified, wherein the  
6 exception performs, within a processor in the active control card, the  
7 following:  
8 modifying configuration data located at a remote address in remote  
9 memory in an inactive control card, wherein the configuration  
10 data located at the local address corresponds to the  
11 configuration data located at the remote address;  
12 modifying the configuration data located at the local address in local  
13 memory in the active control card upon determining that the  
14 modification of the configuration data located at the remote  
15 address in the remote memory in the inactive control card was  
16 successful; and  
17 generating an error without modifying the configuration data located at  
18 the local address in local memory in the active control card  
19 upon determining that the modification of the configuration  
20 data located at the remote address in the remote memory in the  
21 inactive control card was not successful.

1 13. The computer implemented method of claim 12 wherein the request is to write  
2 the configuration data.

1 14. The computer implemented method of claim 12 wherein the request is to  
2 delete the configuration data.

1 15. The computer implemented method of claim 12 wherein the error is displayed  
2 on an interface.

1 16. The computer implemented method of claim 12 wherein the error is passed to  
2 an error parser.

1 17. An apparatus comprising:  
2 an interface to receive a set of configurations;  
3 a first control card coupled to the interface, the first control card having a first  
4 memory;  
5 a second control card coupled to the interface and the first control card, the  
6 second control card to receive the set of configurations from the  
7 interface, to generate a set of commands for the set of configurations,  
8 to execute the set of commands on the first memory in response to an  
9 exception, and to execute the set of commands on a second memory of  
10 the second control card.

1 18. The apparatus of claim 17 wherein the first memory and the second memory  
2 are a first main memory and a second main memory.

1 19. The apparatus of claim 17 wherein the first memory and the second memory  
2 are a first storage and a second storage.

1 20. The apparatus of claim 17 wherein the first memory is mapped into the second  
2 memory.

1 21. The apparatus of claim 17 further comprising the second control card to  
2 generate an error if the set of commands are not executed successfully on the first  
3 memory.

1 22. The apparatus of claim 17 wherein the set of commands are a set of write  
2 commands.

1 23. The apparatus of claim 17 wherein the set of commands are a set of delete  
2 commands.

1 24. An apparatus comprising:  
2 a processor to execute a configuration process, the configuration process to  
3 receive a set of configurations, process the set of configurations, and to  
4 submit a set of requests to the processor;  
5 a first memory coupled to the processor, the processor to perform the set of  
6 requests on the first memory in response to an exception triggered by  
7 the set of requests; and  
8 a second memory coupled to the first memory and the processor, the processor  
9 to perform the set of requests on the second memory if the set of  
10 requests are performed successfully on the first memory.

1 25. The apparatus of claim 24 wherein the first memory and the second memory  
2 are a first main memory and a second main memory.

1 26. The apparatus of claim 24 wherein the first memory and the second memory  
2 are a first storage and a second storage.

1 27. The apparatus of claim 24 wherein the set of requests are a set of write  
2 commands.

1 28. The apparatus of claim 24 wherein the set of requests are a set of delete  
2 commands.

1 29. The apparatus of claim 24 further comprising the processor to generate an  
2 error if the set of requests are not performed on the first memory successfully.

1 30. The apparatus of claim 24 further comprising a second processor coupled to  
2 the first processor, the first memory, and the second memory.

1 31. A machine-readable medium that provides instructions, which when executed  
2 by a set of processors of one or more processors, cause said set of processors to  
3 perform operations comprising:

4 generating a first command for a set of network data to be executed on a local  
5 memory;

6 executing a second command for the set of network data on a remote memory  
7 in response to generation of the first command;

8 determining whether the second command has been executed successfully on  
9 the remote memory;

10 executing the first command on the local memory upon determining the  
11 second command is executed successfully; and

12 generating an error upon determining the second command is not executed  
13 successfully.

1 32. The machine-readable medium of claim 31 wherein the set of network data is  
2 a set of configurations.

1 33. The machine-readable medium of claim 31 wherein the first command is a  
2 write command to an address of the local memory and the second command is a write  
3 command to an address of the remote memory.

1 34. The machine-readable medium of claim 31 wherein the first command is a  
2 delete command for an address of the local memory and the second command is a  
3 delete command for an address of the remote memory.

1 35. A machine-readable medium that provides instructions, which when executed  
2 by a set of processors of one or more processors, cause said set of processors to  
3 perform operations comprising:  
4 associating a first memory to a second memory;  
5 receiving a set of configurations;  
6 processing the set of configurations;  
7 generating a set of commands for the first memory, the set of commands  
8 corresponding to the processed set of configurations;  
9 triggering an exception when processing the set of commands for the first  
10 memory, wherein the exception performs the following:  
11 executing the set of commands on the second memory;  
12 upon determining the set of commands are executed successfully on  
13 the second memory, executing the set of commands on the first  
14 memory; and  
15 upon determining the set of commands are not executed on the second  
16 memory successfully, generating an error.

1 36. The machine-readable medium of claim 35 wherein the set of configurations  
2 are for a set of network processes.

1 37. The machine-readable medium of claim 35 wherein the error is displayed as a  
2 text message.

1 38. The machine-readable medium of claim 35 wherein the error is passed to an  
2 error parser.

1 39. The machine-readable medium of claim 35 wherein the associating the first  
2 memory to the second memory comprises associating a set of addresses of the first  
3 memory to a set of addresses of the second memory.

1 40. The machine-readable medium of claim 35 wherein the set of commands are a  
2 set of write commands.

1 41. The machine-readable medium of claim 35 wherein the set of commands are  
2 a set of delete commands.

1 42. A machine-readable medium that provides instructions, which when executed  
2 by a set of processors of one or more processors, cause said set of processors to  
3 perform operations comprising:  
4 receiving a request to modify configuration data located at a local address in  
5 local memory in an active control card;  
6 generating an exception when the configuration data located at the local  
7 address in the local memory is attempted to be modified, wherein the



8 exception performs, within a processor in the active control card, the  
 9 following:  
 10 modifying configuration data located at a remote address in remote  
 11 memory in an inactive control card, wherein the configuration  
 12 data located at the local address corresponds to the  
 13 configuration data located at the remote address;  
 14 modifying the configuration data located at the local address in local  
 15 memory in the active control card upon determining that the  
 16 modification of the configuration data located at the remote  
 17 address in the remote memory in the inactive control card was  
 18 successful; and  
 19 generating an error without modifying the configuration data located at  
 20 the local address in local memory in the active control card  
 21 upon determining that the modification of the configuration  
 22 data located at the remote address in the remote memory in the  
 23 inactive control card was not successful.

1 43. The machine-readable medium of claim 42 wherein the request is to write the  
 2 configuration data.

1 44. The machine-readable medium of claim 42 wherein the request is to delete the  
 2 configuration data.

1 45. The machine-readable medium of claim 42 wherein the error is displayed on  
 2 an interface.

1 46. The machine-readable medium of claim 42 wherein the error is passed to an  
 2 error parser.